

**THE PORT AUTHORITY
OF NY & NJ**



ORIGINAL SIGNED & SEALED BY
N.Y. P.E. (OR R.A.)

**Ram Communications
Consultants, Inc.**
10 Woodbridge Center Drive
Woodbridge, NJ 07095
(908) 636-8970 Fax (908) 636-7260

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS FOR THE PROJECT AND THAT I AM A duly Licensed Professional Engineer in the State of New Jersey. THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.

DATE: 1/16/98 *Stephen A. DeLeon*
DATE: 1/16/98 *R.K. [Signature]*
ENGINEER OF DESIGN

No. Date Revision Approved

**The
World
Trade
Center**

STANDBY POWER
5 WORLD TRADE CENTER
COMMUNICATIONS

DETAILS-3

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

D.S. R.M. D.S.
Designed by Drawn by Checked by
Date Scale NONE
Contract Number Drawing Number
WTC-945.071 E-813

1. BREAK AWAY ONLY ENOUGH DRYWALL TO ALLOW FOR INSTALLATION OF WIRING AND GROUNDING PLATE. BOTTOM OF 12" X 12" PLATE AT 8" TO 10" AFF.
2. SCRAPE OR GRIND SURFACE OF COLUMN DOWN TO BARE METAL ON AREA WHERE GROUNDING PLATE IS TO BE ATTACHED.
3. DRILL PLATE IN 4 LOCATIONS TO ACCEPT 1/2" BURNDY OR APPROVED EQUAL DURAM-SILICON BRONZE NUT AND STUD. COUNTERSINK DRILLED HOLE TO ACCEPT STUD WELDED TO COLUMN.
4. COAT COLUMN OVER AREA WHERE GROUNDING PLATE IS TO BE ATTACHED WITH "PENETRO-A" OR APPROVED EQUAL CONDUCTIVE OXIDE INHIBITOR COMPOUND.
5. EXOTHERMICALLY WELD STUDS TO COLUMN. ATTACH PLATE. EXOTHERMICALLY WELD NUTS TO PLATE.
6. CONNECT GROUND LUGS TO PLATE AS SHOWN ELSEWHERE ON THIS DRAWING.

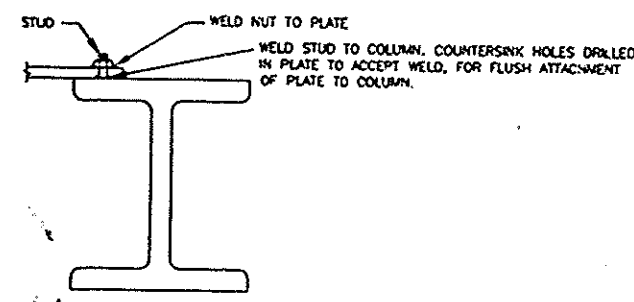
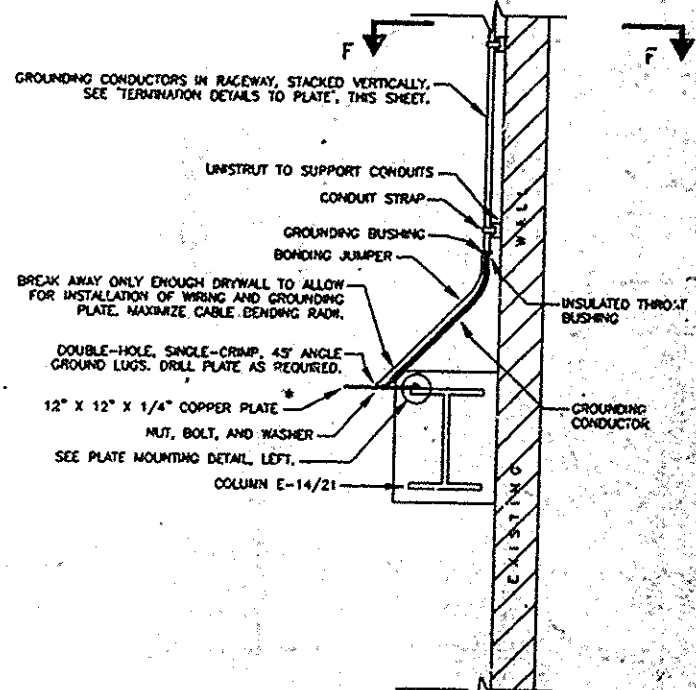
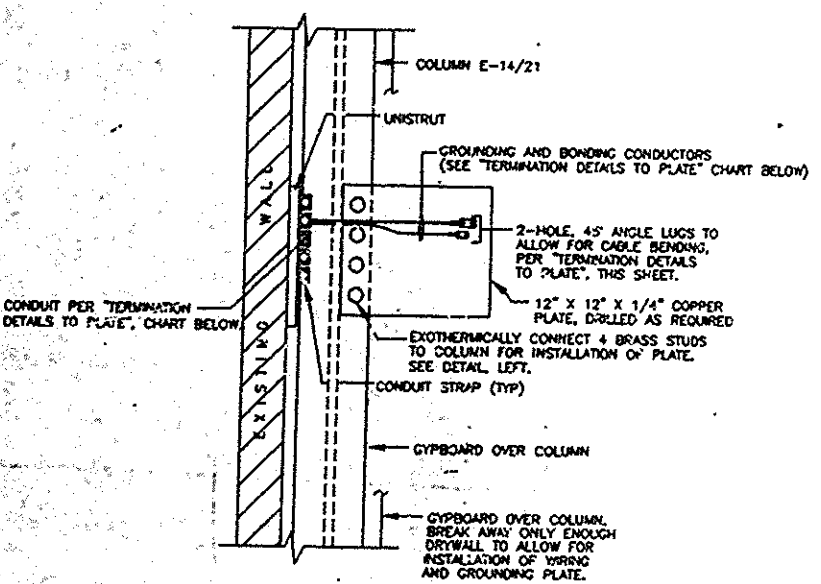


PLATE MOUNTING DETAIL
(NOT TO SCALE)



* EXOTHERMICALLY CONNECT 4 BRASS STUDS TO COLUMN E-14/21 FOR INSTALLATION OF PLATE. SEE "PLATE MOUNTING DETAIL", LEFT.

GROUNDING PLATE/TERMINATIONS AT COLUMN E-14/21
(NOT TO SCALE)



VIEW F - F
(NOT TO SCALE)

| TERMINATION DETAILS TO PLATE | | | | | |
|------------------------------|----------------------|---|------------------|--|---|
| EQUIPMENT | GROUND * | APPLICATION OR APPROVED EQUAL GROUNDING BUSHING | BONDING JUMPER * | BURNDY OR APPROVED EQUAL 45° GROUNDING LUG # | BURNDY OR APPROVED EQUAL 45° JUMPER LUG # |
| UPS | 1-1/2 #1/0 IN 3/4" C | GB-75L-10 | 1-1/2 #1/0 | YAZSL-ZTC38-45 | YAZSL-ZTC38-45 |
| FENCE | 1-1/2 #2 IN 3/4" C | GB-75L-10 | 1-1/2 #4 | YAZSL-ZTC38-45 | YAZSL-ZTC38-45 |
| FENCE AND GATE | 1-1/2 #2 IN 3/4" C | GB-75L-10 | 1-1/2 #4 | YAZSL-ZTC38-45 | YAZSL-ZTC38-45 |
| TRANSFORMER | 1-1/2 #2 IN 3/4" C | GB-75L-10 | 1-1/2 #4 | YAZSL-ZTC38-45 | YAZSL-ZTC38-45 |
| ANTENNA GROUNDING PLATE | 1-1/2 #4/0 IN 1" C | GB-100L-10 | 1-1/2 #2/0 | YAZSL-ZTC38-45 | YAZSL-ZTC38-45 |
| CABLE TRAY | 1-1/2 #1/0 BARE | - | - | YAZSL-ZTC38-45 | - |

NOTE: ALL CONDUITS GRS IN MECHANICAL EQUIPMENT ROOM. ALL GROUNDING CONDUCTORS SHALL BE GREEN INSULATED.

TERMINATE LUGS WITH HARDWARE AS DESCRIBED IN VIEW "C", DRAWING E-806.